

AMENDMENTS

In the Claims:

Please cancel claims 1-9, 13, 15-23, 26-36, 44-45, 54-59, 61-67, 69, 71-72, 78-81, 83-84 and 86-98 without prejudice.

Please amend claims 10, 12, 37, 40, 42, 46-48, 82 and 85 as follows:

F1 10. (Twice Amended) A [The] method [according to claim 1, wherein the solvent comprised in the initial mixture is organic] for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

- (a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and an organic solvent(s) for the glass matrix-forming material;
- (b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;
- (c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and
- (d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent.

F2 12. (Twice Amended) A [The] method [according to claim 1, wherein the solvent comprised in the initial mixture] for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

- (a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and a solvent(s) for the glass matrix-forming material, wherein the solvent(s) is a combination of aqueous and organic liquids;
- (b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent.

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3. 37. (Once Amended) A [The] method [according to claim 36, wherein the additive is for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

(a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and solvent(s) for the glass matrix-forming material;

(b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;

wherein the method further comprises the step of adding at least one volatile salt to the mixture before step (c).

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6. 40. (Thrice Amended) A [The] method [according to claim 36, wherein the additive is for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

(a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and solvent(s) for the glass matrix-forming material;

(b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

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(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;

wherein the method further comprises the step of adding at least one salt that decomposes under less than atmospheric pressure to give a gaseous product to the mixture before step (c).

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g *42.* (Twice Amended) A [The] method [according to claim 36, wherein the additive is] for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

(a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and solvent(s) for the glass matrix-forming material;

(b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;

wherein the method further comprises the step of adding at least one volatile organic liquid to the mixture before step (c).

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g *46.* (Once Amended) A [The] method [according to claim 45,] for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

(a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and solvent(s) for the glass matrix-forming material;

(b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;

wherein the method further comprises the step of adding at least one additive to the mixture before step (c), wherein the additive is a foam stabilizing agent, wherein the foam stabilization agent is a viscosity modifier, and wherein the viscosity modifier is a guar gum.

F7 10 47. (Twice Amended) A [The] method [according to claim 44,] for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

(a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and solvent(s) for the glass matrix-forming material;

(b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;

wherein the method further comprises the step of adding at least one additive to the mixture before step (c), wherein the additive is a foam stabilizing agent, and wherein the foam stabilization agent is a surface-active amphipathic molecule.

F8 11 48. (Once Amended) A [The] method [according to claim 36, wherein the additive is] for producing foamed glass matrices (FGMs) containing a biologically active agent, comprising the steps of:

(a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent, and solvent(s) for the glass matrix-forming material;

(b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;

(c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and

(d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;

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wherein the method further comprises the step of adding at least additive that is an inhibitor of the Maillard reaction to the mixture before step (c).

F9

13 82. (Once Amended) A [The] method [according to claim 58,] for preserving a biologically active agent within a foamed glass matrix (FGM) comprising the steps of:

- (a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent to be preserved and solvent(s) for the glass matrix-forming material;
- (b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;
- (c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and
- (d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;
wherein the biologically active agent to be preserved is a vaccine; and
wherein the vaccine comprises Hepatitis B Surface Antigen, measles virus, or oral polio virus.

F10 13 85. (Twice Amended) A [The] method [according to claim 62,] for preserving a biologically active agent within a foamed glass matrix (FGM) comprising the steps of:

- (a) preparing an initial mixture comprising at least one glass matrix-forming material containing a biologically active agent to be preserved selected from the group consisting of a therapeutic agent, a prophylactic agent, a pharmaceutically effective substance and a diagnostic reagent and solvent(s) for the glass matrix-forming material;
- (b) evaporating a portion of the solvent(s) from the mixture to obtain a syrup;
- (c) boiling the syrup under less than atmospheric pressure to produce foaming of the syrup; and
- (d) continuing step (c) until the boiling results in the formation of a solid foam and produces a foamed glass matrix containing the biologically active agent;
wherein the biologically active agent to be preserved is dissolved in the mixture.